



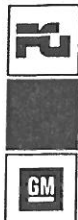
Fisher Guide Division

1000 Town Line Road

General Motors Corporation

Syracuse, New York 13221-4869

Syracuse Plant



PEL: WK88-018

June 27, 1988

Mr. G. Michael McPeck
New York State Department of Environmental Conservation
Region 7
7481 Henry Clay Boulevard
Liverpool, New York 13088

Subject: Ley Creek

Dear Mr. McPeck:

Enclosed is a copy of the report entitled "Field Investigation Ley Creek Dredged Material Area". This report outlines the work performed to date under the Ley Creek Consent Order and proposes the location of the six (6) Monitoring Wells (MW) which are to be installed in accordance with Task 2 of the Work Plan.

As the Monitoring Wells locations are to be selected with the concurrence of the D.E.C., please review the report and contact Mr. Jim Mickam of O'Brien & Gere Engineers at: (315) 451-4700, whether you concur with the proposed locations. This letter is directed to you, given our understanding that you are the D.E.C.'s field representative in this matter. Arrangements as to commencement of the Monitoring Well installation can be made directly with O'Brien & Gere.

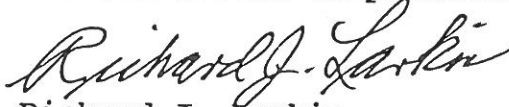
Finally, with respect to the analytical data contained in the report, only two (2) borings showed any concentrations above the hazardous waste threshold of 50 ppm polychlorinated biphenyls (PCBs). These two points are located on the east side of the study area, south of Ley Creek.

PEL: WK88-018
Letter to Mr. G. Michael McPeck
Page 2

If you should have any questions or require further copies of the report, feel free to contact me at: (315) 432-5206.

Very truly yours,

FISHER GUIDE DIVISION
General Motors Corporation



Richard J. Larkin
Manager -
Manufacturing Engineering

WEK/RJL/emr
Enclosure

cc: Frank Bifera, Esq., N.Y.S. D.E.C.
(w/enclosure)
Al Grant, N.Y.S. D.E.C. (Division of Environmental
Enforcement) (w/enclosure)
Robert Burdick, Onondaga County Dept. of Health -
(w/enclosure)
Ronald Tramontano, NYS Department of Health -
(w/enclosure)
James Mickam, O'Brien & Gere Engineers
(w/enclosure)

Report

Field Investigation in Ley Creek Dredged Material Are

Interim Technical Memorandum

General Motors Corporation
Fisher Guide Division
East Syracuse, New York

June 1988



O'BRIEN & GERE

FIELD INVESTIGATION
LEY CREEK
DREDGED MATERIAL AREA

INTERIM TECHNICAL MEMORANDUM

GENERAL MOTORS CORPORATION
FISHER GUIDE DIVISION
EAST SYRACUSE, NEW YORK

JUNE 1988

O'BRIEN & GERE ENGINEERS, INC.
1304 BUCKLEY ROAD
SYRACUSE, NEW YORK 13221

I. INTRODUCTION

This memorandum presents data collected to date in conjunction with the General Motors Corporation, October 1987, Field Investigations, Work Plan, at the Ley Creek Dredged Materials Site, in the Town of Salina, East Syracuse, New York. The purpose of the investigation is to evaluate the extent of soils and ground water containing PCBs in areas immediately adjacent to Ley Creek from Townline Road downstream to the Town of Salina Highway Garage. The study area covers a distance of approximately 5,000 feet as shown in Figure 1. Specifically, this memorandum outlines the work efforts completed to date, provides geologic and laboratory analytical data, and defines the proposed locations of the 6 monitoring wells to be installed as described in Task 2 of the Work Plan.

II. FIELD INVESTIGATIONS

A. Geophysical Surveys

Surface geophysical survey techniques were tested and evaluated on the site to assess their ability to delineate the horizontal and vertical limits of dredged materials with respect to native materials. Conventional resistivity and fixed space electromagnetic terrain conductivity techniques were tested on a previously investigated area to determine the ability of each method to distinguish dredged materials from native soils. The preliminary testing indicated that electrical interferences resulting from high tension power lines, which traverse the site area, affect data variability by as much as four times that of actual variations in soil conductivity, producing erroneous uninterpretable data. The

methods and results of these test surveys are discussed in Attachment A, appended to this document.

B. Soil Borings and Sampling

A total of 23 soil borings were completed along the south and north sides of Ley Creek, between Townline Road and the Town of Salina Garage (Figure 2). The locations of the soil borings were identified in the work plan and approved in the field by representatives from the New York State Department of Conservation (Mr. Mike McPeck) and the Onondaga County Health Department (Mr. Jeffery Banikowski and Mr. Tim Purcell) prior to completion. Seventeen soil borings were located along the south bank of Ley Creek. Soil samples were collected as per the specifications outlined in the October 1987 Work Plan and completed to a depth of approximately 4 feet below the base of fill materials and ranged in depth from 10 to 16 feet below ground level. The 6 soil borings completed along the north side of Ley Creek were installed using a tripod rig as described in the attached letter dated February 1, 1988 (Attachment B). As agreed upon with Mr. McPeck and Mr. Purcell, these borings were installed to a depth of 8 feet.

Soil samples were collected continuously, using split-barrel samplers, as per ASTM-D-1586-67. Soil samples collected from the split-barrel samplers were divided length-wise into two parts. One half of the sample was collected and submitted to OBG Laboratories, Inc. The remaining portion was retained for descriptive interpretation, subsequent analyses and/or to be split with the NYSDEC and OCHD representatives at their discretion.

The soil samples were relinquished under chain of custody to OBG Laboratories, Inc., and submitted for PCB analyses (SW 846-8080). All

analyses and QA/QC were completed in accordance with the procedures outlined in the approved work plan. The collected soil samples were composited in the laboratory to represent four foot intervals as described in the Work Plan.

III. INVESTIGATIVE RESULTS

A. Local Geology

A review of subsurface samples collected during the soil boring program showed that the geology at the Ley Creek site, is characterized by disturbed dredged materials superposed on, natural reworked glacial lacustrine and glacial till deposits.

The dredged materials are comprised mainly of silt, clay, fine sand and gravel with varying amounts of miscellaneous debris (wood fragments, plant materials, glass, etc.). On the south side of Ley Creek these deposits range from 4 to 10 feet in depth. Along the north side of the creek, the dredged materials range from 0 to 4 feet in depth. The glacio-lacustrine deposits underlying the dredged materials, consist primarily of silt, clay, fine sand, and varying amounts of fine gravel. These deposits do not exhibit well defined stratigraphy. The deposits most likely represent glacio-lacustrine sediments reworked and deposited by recent fluvial activity, prior to the reconstruction of the Ley Creek stream channel. Underlying these deposits is a dense red till. This layer is believed to serve as an aquitard to vertical ground water flow. In the vicinity of the Ley Creek site the top of the till surface was intersected at a depth of approximately 364 to 369 feet (AMSL). To the south of the site, in the vicinity of the Fisher Guide Facility, this till layer was encountered during a previous study at a depth of

approximately 353 feet. A complete set of boring logs pertaining to the recent Ley Creek work effort are presented as Attachment C.

B. Analytical Results

Soil samples collected continuously, at 2 foot intervals in the field, were composited in the laboratory. Subsequent analytical data represents resultant concentrations measured over a 4 foot interval (i.e. 0-4', 4-8', etc.) These composited samples were analyzed for PCBs as per EPA Method SW846-8080. The resultant laboratory data reveals that concentrations of PCBs greater than 50 ppm are present in only two of the soil borings, located along the south side of Ley Creek. These borings include B1 and B6 which exhibited maximum concentrations of 53 and 180 ppm, respectively. Maximum reported concentrations of PCBs measured in ppm, at each boring location are illustrated in Figure 3. Detectable values of PCBs, present in the soils, are essentially limited to the south side of Ley Creek, east of soil boring B11. Three soil samples collected at boring locations B19, B20 and B22 located on the north side of Ley Creek exhibited concentrations above the detection limit (1 ppm). A complete set of laboratory data is presented in Attachment D. A review of the QA/QC data indicate the data is valid.

C. Proposed Locations of Monitoring Wells

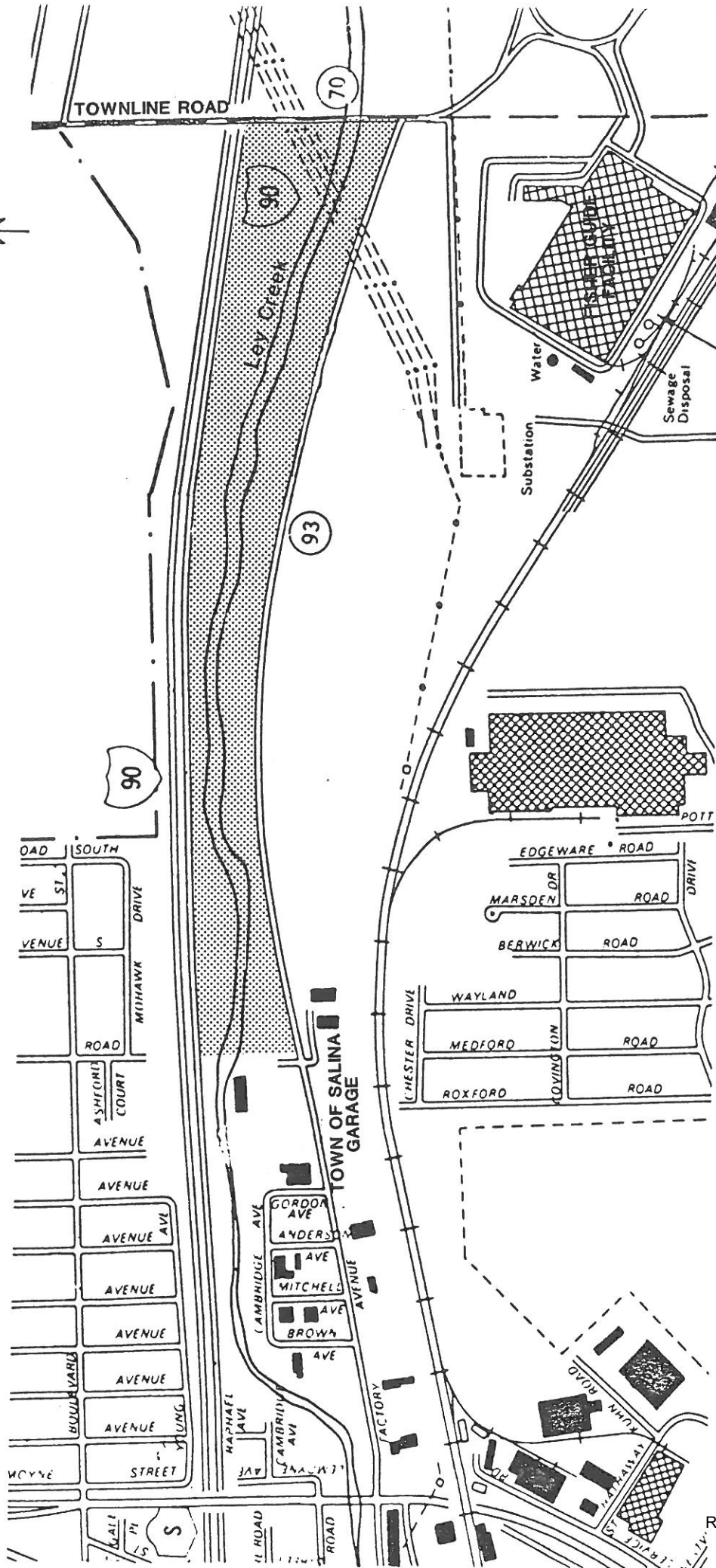
In accordance with Task 2 of the October 1987, Work Plan, the locations of the 6 proposed monitoring wells have been identified and are illustrated in Figure 4. These proposed well locations were selected in areas where maximum PCB concentrations were detected. Additionally, the proposed well sites were located spatially, in a manner which will enable the calculation of horizontal ground flow rates and flow direction.

The tentative scheduling for the installation of these monitoring wells will be initiated pending the review of this document, by the New York State Department of Environmental Conservation and the Onondaga County Health Department.

Figur

FIGURE 1

SITE LOCATION MAP



RACER0059830

TOWN OF SALINA
HIGHWAY GARAGE

NEW YORK STATE THRUWAY

LEY

FACTORY

AVE.

COURT

ST.

B 18

B 20

B 2

B 19

B 9

B 8

B 7

B 6

B 3

B 5

B 17

B 10

B 11

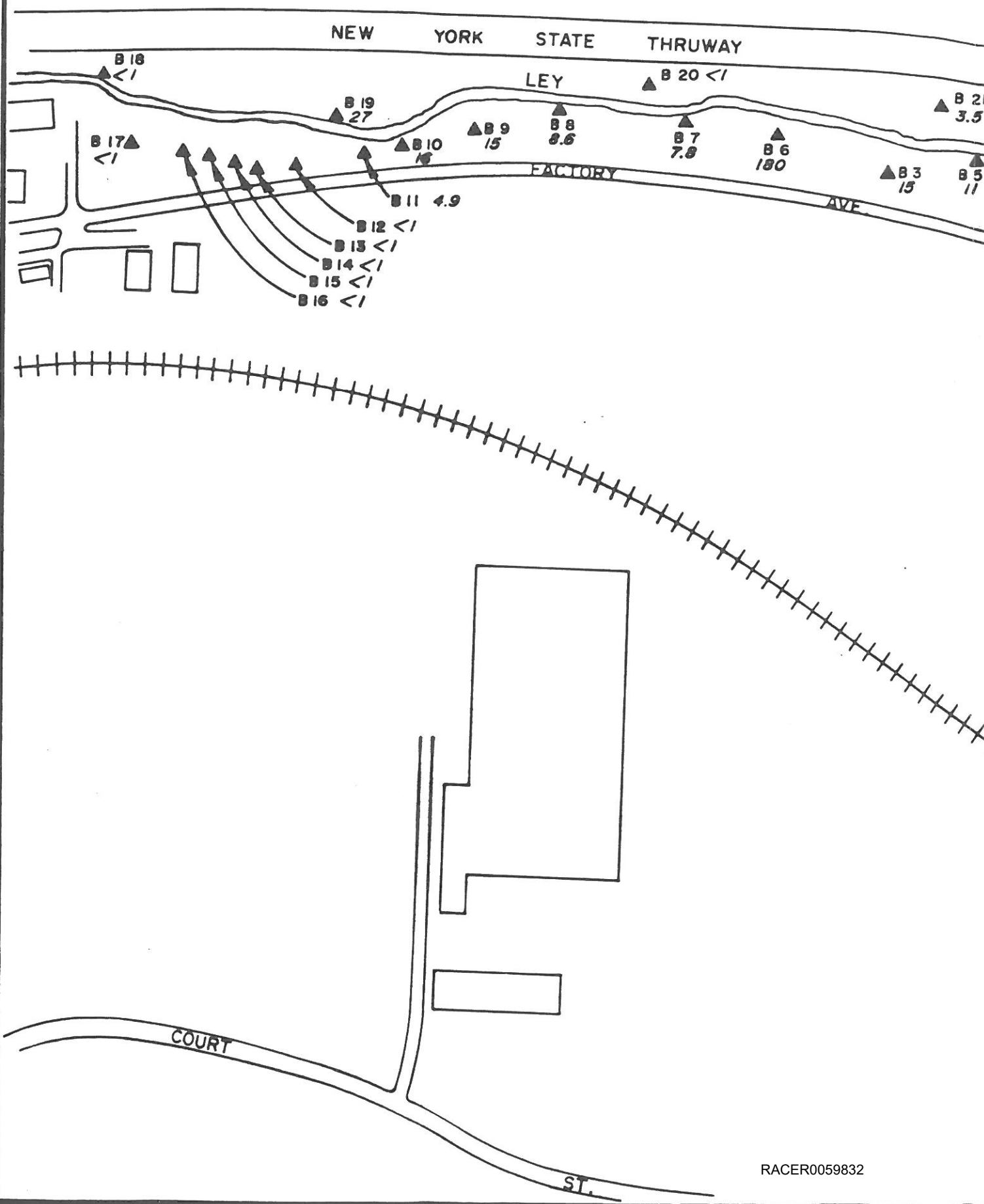
B 12

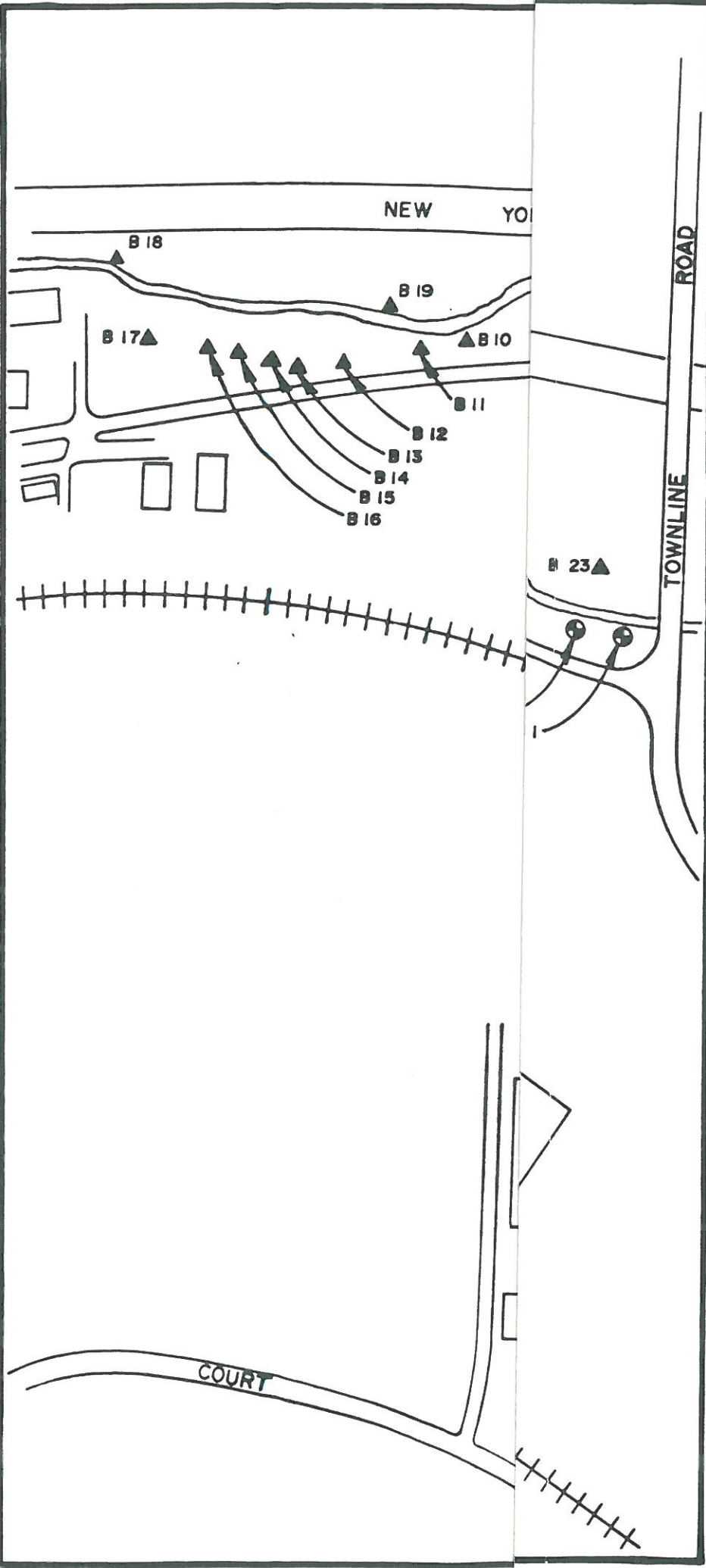
B 13

B 14

B 15

B 16



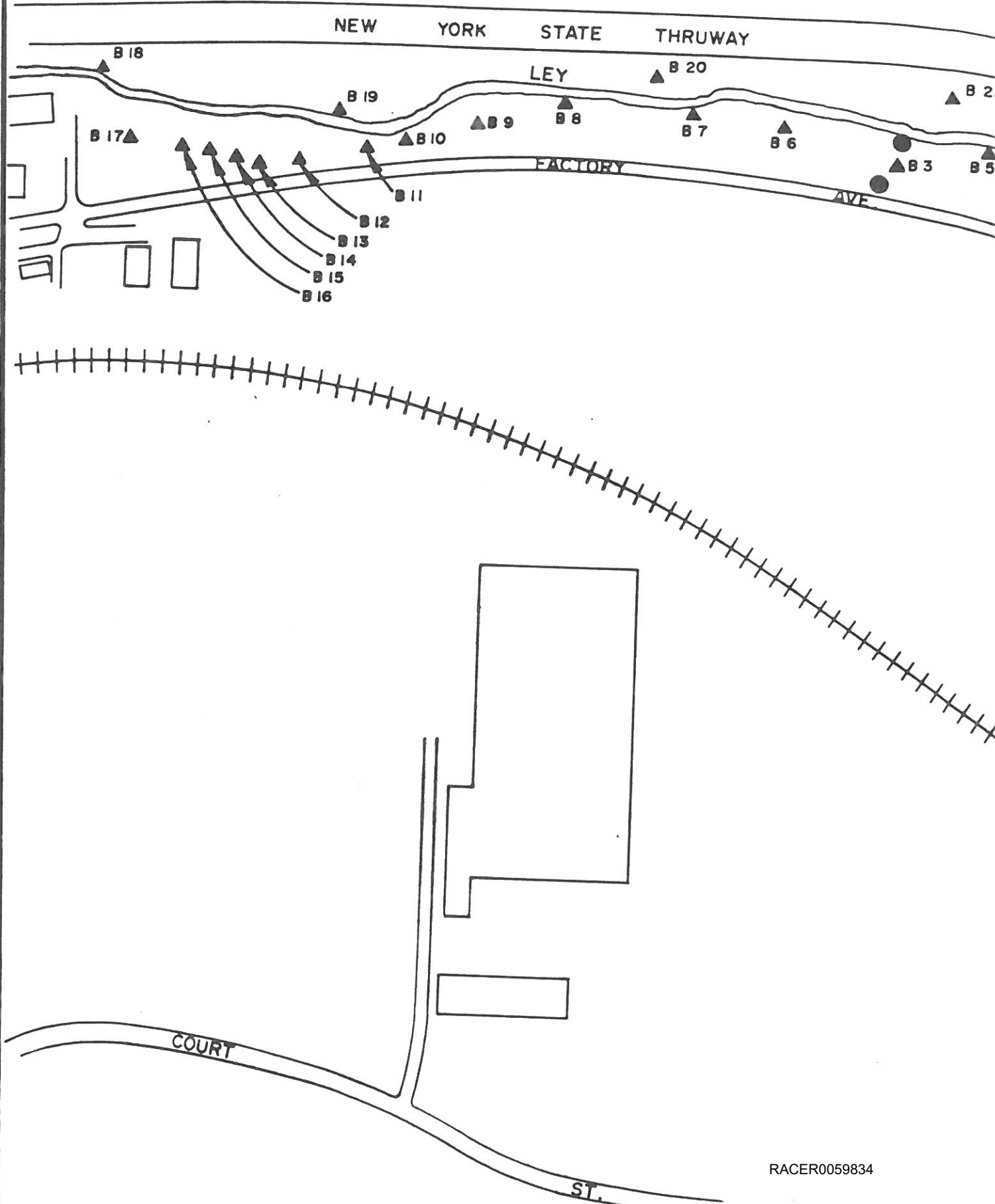


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Attachment A
Geophysical Test Survey

MEMO: To Files
FROM: W.J. Gabriel
RE: General Motors Corporation
Ley Creek Project
Geophysical Test Survey
FILE: 3247.021.130
DATE: January 27, 1988

CC: E.C. Tifft, Jr.
J.C. Tomik
S.W. Kaczmar
H.T. Appleton

W.J. Gabriel

On Friday, January 8, 1988, I performed a geophysical survey at the General Motors, Ley Creek Site. The survey was conducted to assess the suitability of geophysical techniques to define lateral changes in fill materials and vertical depths of the fill. The proposed techniques included electromagnetic terrain conductivity and electrical resistivity methods.

Initial site investigations revealed that the site is traversed by overhead, unshielded, high tension power lines. Underground utilities include a sewer main which runs along the south property boundary and a buried power line located along the eastern portion of the property. The site is undeveloped, undulating, and covered with varying densities of tall weeds, brush and trees. Elevated mounds of fill materials are evident throughout the site. The mounds are composed of a variety of materials, including dredged fill and hard fill (concrete, rebar, pipes, etc.). These lateral changes in surface materials resulting from dumping and dredging, topographic irregularities and discontinuities, (drainage, ravines, dense vegetation, etc.), and the presence of the overhead power lines, preclude accurate resistivity data collection. Also in many cases resistivity probes could not be driven into these hard fill materials and/or frozen ground conditions.

In order to test the accuracy of electromagnetic techniques at the site, a single traverse line 300 feet in length was established in a centralized area where quantitative cultural effects or "noise" (power lines, metal debris, etc.) would be at a minimum (Figure 1). A Geonics EM-31 Fixed Spacing Electromagnetic Terrain Conductivity Meter was used throughout the test survey. The traverse was essentially oriented east to west along the central portion of the site. The initial 150 feet of the traverse was located in the vicinity of the power lines. The remaining 150 feet of the traverse was located approximately 50 feet (horizontal distance) from the overhead power lines. Data were collected at 10 foot intervals along the initial 170 feet of the traverse. Data stations were located adjacent to and over elevated fill areas to determine conductivity variations related to changes in fill materials and to assess the effects of the cultural interferences. To assess the quantitative affects of the cultural interferences ("noise") additional data were also collected adjacent to the traverse, beneath the power lines, and along the creek bank which is located approximately 100 feet from the power lines. The approximate locations of the data stations are presented in Figure 2.

Memo: 3247.021.130

February 2, 1988

Page Two

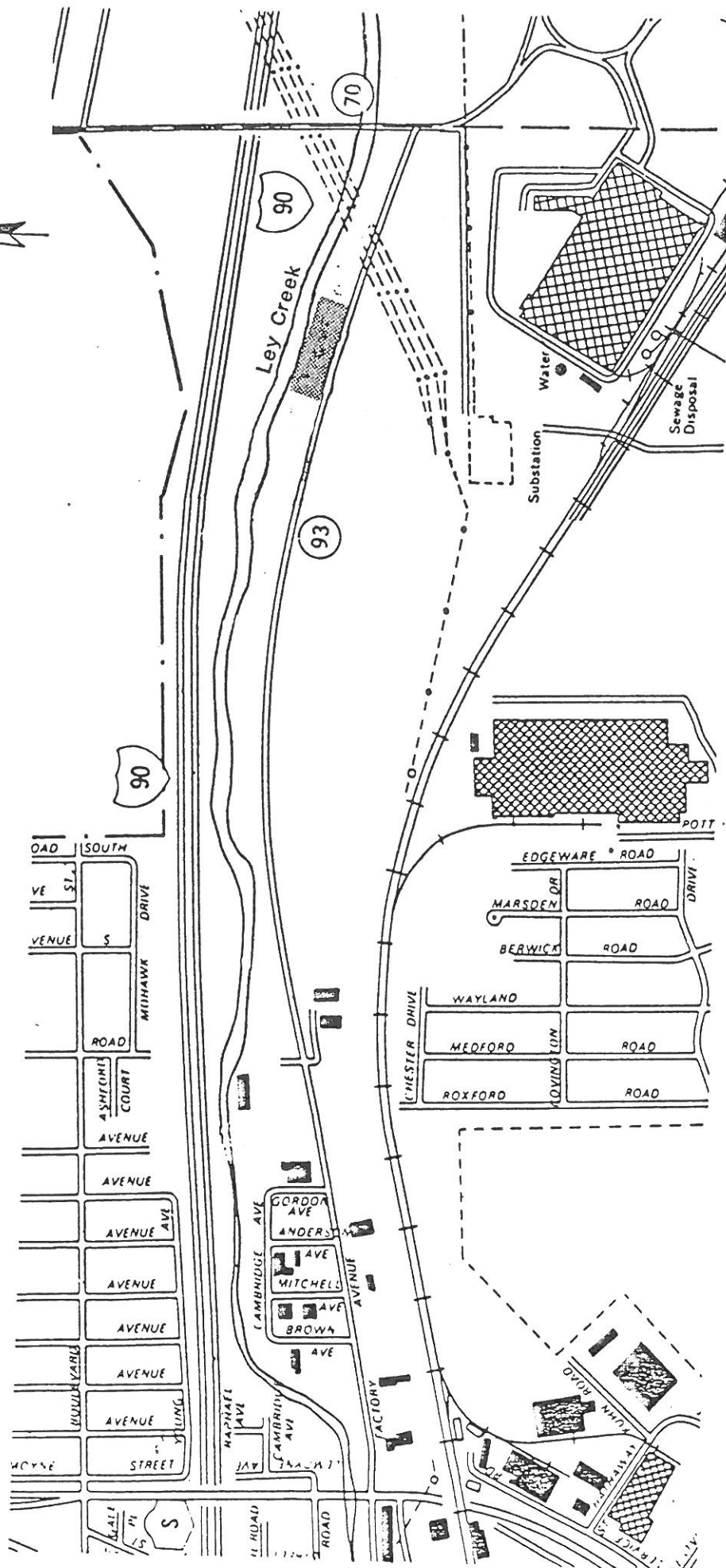
A review of the data reveals that conductivity contrasts between fill and non-fill materials are subtle (0 to 5 millimhos/meter) and/or poorly defined. By comparison, data variations related to the distance from the overhead power lines varied as much as 15 to 20 millimhos/meter. These cultural influences may therefore affect variations in data values by as much as 4 times that of actual variations in the soil conductivity. In general sites which exhibit extraneous "cultural" effects such as these are not amenable to direct and/or indirect electrical induction geophysical techniques. It should also be noted that further to the west an additional set of overhead, high tension wires, runs parallel to those monitored in the test area, compounding the "noise" problems.

In retrospect, initial site investigations should be designed to define and locate potential sources of interference which can affect geophysical data quality. Based on the findings of such an investigation, the feasibility of the proposed geophysical techniques should then be evaluated with respect to instrumentation performance considerations, and the required qualitative resolution of the resultant data.

WJG:emr/30.28



Figure 1 Geophysical Test Survey Location Map



Geophysical Survey Location



OBRIEN & GERE

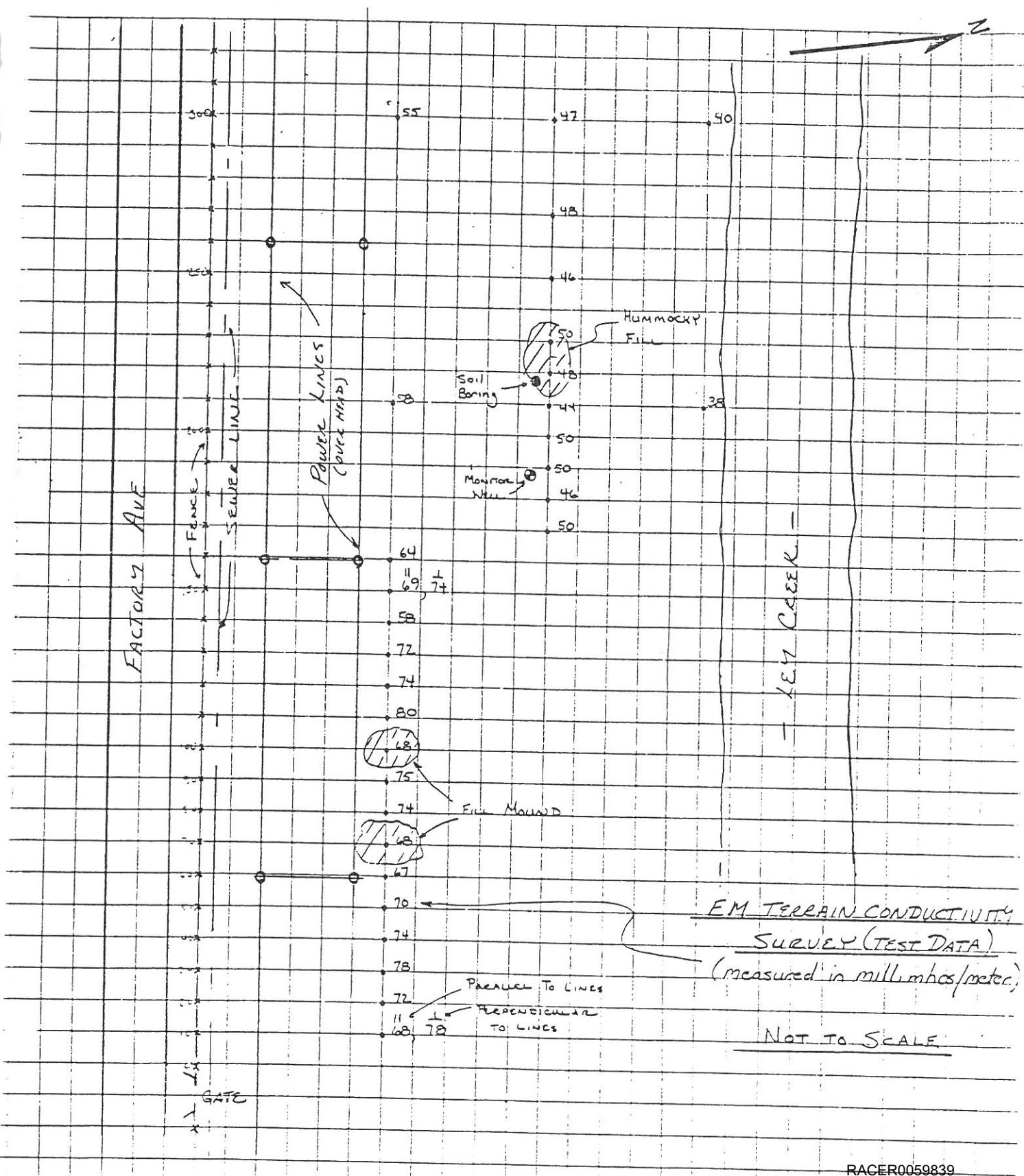
Scale 1:800



O'BRIEN & GERE

Figure 2

SUBJECT	SHEET	BY	DATE	JOB NO
GM-LEY GEOPHYSICAL SURVEY DATA		W.J.G.	1/27/88	3247.021.130



Attachment B

Field Investigations Memorandum
2/1/88



O'BRIEN & GERE

February 1, 1988

Mr. William E. Kochem, Jr.
Senior Plant Engineer
Plant Engineering Department
Fisher Guide Division
General Motors Corporation
1000 Town Line Road
Syracuse, New York 13221-4869

bcc: M.A. Gilmer, Jr. (General Motors Corporation)
S.W. Kaczmar (O'Brien & Gere Engineers, Inc.)
P. Kienle (General Motors Corporation)
B.R. Kogut, Esq. (Bond, Schoeneck & King)
R. Larkin (General Motors Corporation)
W.J. McFarland (General Motors Corporation)
H. J. Moffat (General Motors Corporation)
T.K. Pelis (O'Brien & Gere Engineers, Inc.)
J.C. Tomik (O'Brien & Gere Engineers, Inc.)
J. P. Walle, Esq. (General Motors Corporation)
J.T. Mickam (O'Brien & Gere)

Re: Field Investigation
Ley Creek
Soil Borings Installation

File: 3247.021

Dear Bill:

As you are aware, we have been actively installing soil borings, collecting and compositing soil samples, etc. at the Ley Creek Site, in accordance with the NYSDEC Consent Order signed by General Motors. To date, 17 soil borings have been installed along the south side of the Ley Creek. The 6 borings located along the north creek bank were not installed due to accessibility problems. An on-site field investigation of the Ley Creek north bank revealed conditions that were not amenable to the drilling equipment used to install the borings on the south side. In light of these site specific problems, alternative drilling equipment and methodologies were discussed with Mike McPeck (New York State Department of Environmental Conservation) and Jeff Banikowski (Onondaga County Health Department).

The mutually agreed upon alternative method will be to complete the 6 shallow north side borings with a portable tripod rig. This method would provide access to otherwise inaccessible areas and is presently available. The method utilizes the same split spoon soil sampling technique as outlined in the Consent Order. However, the soil sampler is advanced with the tripod rig rather than with a hollow stem auger as indicated in the work plan. As these will be shallow borings (less than 8 feet) we do not anticipate any logistical problems using this method.

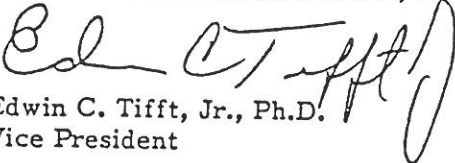
We would prefer to install the 6 north side borings as soon as possible so as to provide temporal continuity in the field sampling and laboratory analyses programs. This portion of the program has been scheduled to begin on February 3, 1988. We will adhere to this schedule unless objections are received prior to February 3, 1988.

Mr. William E. Kochem, Jr.
February 1, 1988
Page Two

Copies of this correspondence are being sent to the persons referenced below including local NYSDEC (Region 7) and OCHD representatives. If you desire additional copies to be forwarded to other interested and/or involved parties, or if you have any questions concerning this matter, please do not hesitate to contact me.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.


Edwin C. Tift, Jr., Ph.D.
Vice President

WJG:emr/30.24

cc: R. Burdick (Onondaga County Health Department)
L. Gross (NYSDEC Region 7)
M. McPeck (NYSDEC Region 7)
J. Banikowski (Onondaga County Health Department)
F. Bifera (NYSDEC, Albany)
R. Tramontano (NYSDEC, Albany)

Attachment C
Boring Logs

RACER0059845

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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[illegible]

RACER0059865

Attachment D
Soil Boring Analyses



Laboratory Report

CLIENT GENERAL MOTORS CORPORATIONJOB NO. 3247.041.517DESCRIPTION Ley Creek, Composite Soil Samples from BoringsDATE COLLECTED See BelowDATE REC'D. 1-15-88DATE ANALYZED 1-19-88

SITE	DATE COLLECTED	SAMPLE #	PCB mg/kg dry weight	AROCLOR	PERCENT TOTAL SOLIDS
B6 0-4'	1-13-88	G4609	59.	1248	73.
B6 4-8'	"	G4610	180.	1248	66.
B6 8-12'	"	G4611	28.	1248	69.
B7 0-4'	1-13-88	G4612	4.4	1248	77.
B7 4-8'	"	G4613	<1.		76.
B7 8-12'	"	G4614	7.8	1016/1242/1248	79.
B7 12-16'	"	G4615	4.4	1016/1242/1248	62.
B8 0-4'	1-15-88	G4616	2.1	1248	81.
B8 4-8'	"	G4617	8.6	1016/1242/1248	77.
B8 8-12'	"	G4618	<1.		74.
B8 12-14'	"	G4619	<1.		80.
Field Blank (EB-2)		G4620	<1.		100.

Methodology: Federal Register — 40 CFR, Part 136, October 26, 1984

Units: mg/l (ppm) unless otherwise noted

Comments:

Authorized: ANTDate: March 11, 1988OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 457-1494

RACER0059867

Laboratory Report



CLIENT GENERAL MOTORS CORPORATION

JOB NO. 3247.041.517

DESCRIPTION Ley Creek, Composite Soil Samples from Borings

DATE COLLECTED See Below

DATE REC'D. 1-20,22-88

DATE ANALYZED 1-22-88

SITE	DATE COLLECTED	SAMPLE #	PCB mg/kg dry weight	AROCLOR	PERCENT TOTAL SOLIDS
B12 0-2'	1-19-88	G4716	<1.		70.
B12 4-8'	"	G4717	<1.		77.
B12 8-10'	"	G4718	<1.		89.
B13 0-4'	1-19-88	G4719	<1.		83.
B13 4-8'	"	G4720	<1.		83.
B13 8-12'	"	G4721	<1.		82.
B13 12-14'	"	G4722	<1.		82.
B14 0-4'	1-19-88	G4723	<1.		85.
B14 4-8'	"	G4724	<1.		84.
B14 8-12'	"	G4725	<1.		79.
Field Blank		G4726	<1.		-
B15 0-2'	1-20-88	G4767	<1.		85.
B15 2-4'	"	G4768	<1.		79.
B15 4-8'	"	G4769	<1.		82.
B15 8-12'	"	G4770	<1.		79.

Methodology: Federal Register — 40 CFR, Part 136, October 26, 1984

Units: mg/l (ppm) unless otherwise noted

Comments:

OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 457-1494

Authorized: CDT

Date: March 11, 1988

RACER0059868



Laboratory Report

CLIENT GENERAL MOTORS CORPORATIONJOB NO. 3247.041.517DESCRIPTION Ley Creek, Composite Soil Samples from BoringsDATE COLLECTED See BelowDATE REC'D. 1-22-88
2-3-88DATE ANALYZED 1-22-88
2-9-88

SITE	DATE COLLECTED	SAMPLE #	PCB mg/kg dry weight	AROCOR	PERCENT TOTAL SOLIDS
B16 0-4'	1-20-88	G4771	<1.		79.
B16 4-8'	"	G4772	<1.		79.
B16 8-12'	"	G4773	<1.		79.
B17 0-2'	1-21-88	G4774	<1.		89.
B17 2-4'	"	G4775	<1.		63.
B17 4-8'	"	G4776	<1.		81.
B17 8-12'	"	G4777	<1.		80.
Field Blank		G4778	<1.		100.
B18 0-2'	2-3-88	G5252	<1.		91.
B18 2-4'	"	G5343			94.
B18 4-8'	"	G5253	<1.		77.
B19 0-4'	2-3-88	G5254	27.	1248	74.
B19 4-8'	"	G5255	<1.		72.

Methodology: Federal Register — 40 CFR, Part 136, October 26, 1984

Units: mg/l (ppm) unless otherwise noted

Comments: *No Analysis - Rock

OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 457-1494Authorized: antDate: March 11, 1988

RACER0059869



Laboratory Report

CLIENT GENERAL MOTORS CORPORATIONJOB NO. 3247.041.517DESCRIPTION Ley Creek, Composite Soil Samples from BoringsDATE COLLECTED See BelowDATE REC'D. 2-5-88DATE ANALYZED 2-9-88

SITE	DATE COLLECTED	SAMPLE #	PCB mg/kg dry weight	AROCLOR	PERCENT TOTAL SOLIDS
B20 0-4'	2-4-88	G5434	<1.		76.
B20 4-8'	"	G5435	<1.		71.
B21 0-4'	2-4-88	G5436	3.5	1248	74.
B21 4-8'	"	G5437	<1.		81.
B22 0-4'	2-4-88	G5438	2.	1248	81.
B22 4-8'	"	G5439	<1.		84.
B23 0-2'	2-5-88	G5441	<1.		80.
B23 2-4'	"	G5442	<1.		74.
B23 4-6'	"	G5443	<1.		71.
B23 6-8'	"	G5444	<1.		81.
Field Blank		G5445	<1.		100.

Methodology: Federal Register — 40 CFR, Part 136, October 26, 1984

Units: mg/l (ppm) unless otherwise noted

Comments:

Authorized: ANTDate: March 11, 1988OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 457-1494

RACER0059870

Laboratory Report

CLIENT GENERAL MOTORS CORPORATION

JOB NO. 3247.041.517

DESCRIPTION Ley Creek, Surface Water

DATE COLLECTED 1-15-88

DATE REC'D. 1-18-88

DATE ANALYZED 1-19-88

[illegible]

Methodology: Federal Register — 40 CFR, Part 136, October 26, 1984

Units: mg/l (ppm) unless otherwise noted

Comments:

Authorized:

Date: March 11, 1988

OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 457-1494

RACER0059871



CHAIN OF CUSTODY RECORD

3247.021-52

SURVEY				SAMPLERS: (Signature)					
EPT-LEY CREEK				<i>William J. Hubert</i>					
STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE			SEQ. NO.	NO. OF CONTAINERS	ANALYSIS REQUIRED
				Water	Air				
				Comp.	Grab.				
B2-2	(0-2')	1/11/88			✓			1	PCB'S (SW 846-8080)
B2-2	(2-4')	1/11/88			✓			1	
B2-3	(4-6')	1/11/88			✓			1	
B2-4	(6-8')	1/11/88			✓			1	
B1-5	(8-10')	1/11/88			✓			1	
B2-1	(0-2')	1/11/88			✓			1	
B2-2	(2-4')	1/11/88			✓			1	
B2-3	(4-6')	1/12/88			✓			1	
B2-4	(6-8')	1/12/88			✓			1	
B2-5	(8-10')	1/12/88			✓			1	
B2-6	(10-12')	1/12/88			✓			1	
B2-7	(12-14')	1/12/88			✓			1	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
<i>William J. Hubert</i> 1/13/88								10:10A	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Relinquished by: (Signature)				Received by Mobile Laboratory for field analysis: (Signature)				Date/Time	
Dispatched by: (Signature)		Date/Time		Received for Laboratory by:				Date/Time	
				<i>Ami Kellizari</i>				1/13/88 10:10	
Method of Shipment:									



CHAIN OF CUSTODY RECORD

3247.05.150

SURVEY				SAMPLERS: (Signature)					
607-KEY PEEK				William J. Labadie					
STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE			SEQ. NO.	NO. OF CONTAINERS	ANALYSIS REQUIRED
				Water		Air			
				Com.	Grav.				
B3-1	(0-2')	1/12/88			/			1	PCB'S (SWET6-8080)
B3-2	(2-4')	1/12/88			/			1	
B3-3	(4-6')	1/12/88			/			1	
B3-4	(6-8')	1/12/88			/			1	
B3-5	(8-10')	1/12/88			/			1	
B4-1	(0-2')	1/12/88			/			1	
B4-2	(2-4')	1/12/88			/			1	
B4-3	(4-6')	1/12/88			/			1	
B4-4	(6-8')	1/12/88			/			1	
B5-1	(0-2')	1/13/88			/			1	
B5-2	(2-4')	1/13/88			/			1	
B5-3	(4-6')	1/13/88			/			1	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
William J. Labadie 1/13/88 10:10A									
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Relinquished by: (Signature)				Received by Mobile Laboratory for field analysis: (Signature)				Date/Time	
Dispatched by: (Signature)		Date/Time		Received for Laboratory by:		Date/Time			
				Kori Pellegrini		1/13/88 10:10			
Method of Shipment:									



CHAIN OF CUSTODY RECORD

50-100

SURVEY				SAMPLERS: (Signature)					
57-100 (Syracuse)				William C. Gabriel					
STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE			SEQ. NO.	NO. OF CONTAINERS	ANALYSIS REQUIRED
				Water		Air			
				Comp.	Grab.				
B6-1	1-2'	1/13/88		/			1	PBS (SWB46-8080)	
B6-2	2-4'	1/13/88		/			1		
B6-3	4-6'	1/13/88		/			1		
B6-4	6-8'	1/13/88		/			1		
B6-5	8-10'	1/13/88		/			1		
B6-6	10-12'	1/13/88		/			1		
B7-1	1-2'	1/13/88		/			1		
B7-2	2-4'	1/13/88		/			1		
B7-3	4-6'	1/13/88		/			1		
B7-4	6-8'	1/13/88		/			1		
B7-5	8-10'	1/13/88		/			1		
B7-6	10-12'	1/13/88		/			1	✓	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
William C. Gabriel 1/15/88									
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Relinquished by: (Signature)				Received by Mobile Laboratory for field analysis: (Signature)				Date/Time	
Dispatched by: (Signature)		Date/Time		Received for Laboratory by:		Date/Time			
				Hori Alligari		1/15/88 4:00			
Method of Shipment:									



LABORATORIES, INC.

CHAIN OF CUSTODY RECORD

SURVEY				SAMPLERS: (Signature)					
6A1-LEY Creek				<i>William J. Labrad</i>					
STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE			SEQ. NO.	NO. OF CONTAINERS	ANALYSIS REQUIRED
				Water	Air				
				Comp.	Grab.				
	37-7 (12-14)	1/13/88			✓			1	PCB's (SW846-2080)
	37-8 (14-16)	1/13/88			✓			1	
	38-1 (10-2)	1/15/88			-			1	
	38-2 (2-4)	1/15/88			✓			1	
	38-3 (4-6)	1/15/88			✓			1	
	38-4 (6-8)	1/15/88			✓			1	
	38-5 (8-10)	1/15/88			✓			1	
	38-6 (10-12)	1/15/88			✓			1	
	38-7 (12-14)	1/15/88			✓			1	
	Field Blank (R2)	1/13/88			✓			1	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
<i>William J. Labrad</i> 1/15/88									
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Relinquished by: (Signature)				Received by Mobile Laboratory for field analysis: (Signature)				Date/Time	
Dispatched by: (Signature)		Date/Time		Received for Laboratory by:				Date/Time	
				<i>MOBILE LABORATORY</i>				1/15/88 11:00	
Method of Shipment:									

OBG Laboratories, Inc.

Box 4942 / 1304 Buckley Road / Syracuse, New York 13221 / (315) 457-1494

Oakdale Medical Building / 700 Harry L. Drive / Johnson City, New York 13790

RACER0059876



CHAIN OF CUSTODY RECORD

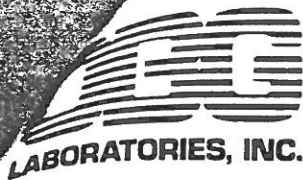
SURVEY				SAMPLERS: (Signature)					
G.M. Ley Creek				A. Exposito, H. Appleton					
STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE			SEQ. NO.	NO. OF CONTAINERS	ANALYSIS REQUIRED
				Water	Com.	Grav.			
SN1	Sediment 1 North	1-15-88						1	/
SC1	Sediment 1 Center							1	S1 PCB
SS1	Sediment 1 South							1	/
SN2	Sediment 2 North							1	/
SC2	Sediment 2 Center							1	S2 PCB
SS2	Sediment 2 South							1	/
SN3	Sediment 3 North							1	/
SC3	Sediment 3 Center							1	S3 PCB
SS3	Sediment 3 South							1	/
SN4	Sediment 4 North							1	/
SC4	Sediment 4 Center							1	S4 PCB
SS4	Sediment 4 South							1	/
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Anthony Exposito									
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Relinquished by: (Signature)				Received by Mobile Laboratory for field analysis: (Signature)				Date/Time	
Dispatched by: (Signature)			Date/Time	Received for Laboratory by:				Date/Time	
				Hori Hilligiani				1/18/88 9:00	
Method of Shipment:									



CHAIN OF CUSTODY RECORD

SURVEY				SAMPLERS: (Signature)					
G. M. Ley Creek				A. Esposito					
STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE			SEQ. NO.	NO. OF CONTAINERS	ANALYSIS REQUIRED
				Water		Air			
				Comp.	Grav.				
SN5	Sediment 5 North	1-15-88						1	✓
SC5	Sediment 5 Center							1	S5 PCB
SS5	Sediment 5 South							1	✓
SN6	Sediment 6 North							1	✓
SC6	Sediment 6 Center							1	S6 PCB
SS6	Sediment 6 South							1	✓
SW1	Surface Water 1							1	PCB
SW2	Surface Water 2							1	PCB
SW3	Surface Water 3	✓						✓	PCB

Relinquished by: (Signature) Anthony Esposito	Received by: (Signature)	Date/Time	
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	
Relinquished by: (Signature)	Received by Mobile Laboratory for field analysis: (Signature)	Date/Time	
Dispatched by: (Signature)	Date/Time	Received for Laboratory by: (Signature) Mike Rizzardi	Date/Time 1/18/88 9:00
Method of Shipment:			



CHAIN OF CUSTODY RECORD

SURVEY				SAMPLERS: (Signature)					
G.M. - Cay Creek				D.T. Bussey <i>[Signature]</i>					
STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE			SEQ. NO.	NO. OF CONTAINERS	ANALYSIS REQUIRED
				Water	Air				
				Comp.	Grav.				
B9	0-2'	1/18/88	1005		X		1	1	SWB-6-3030 See Lab. label
B9	2-4'		1010		X		2	1	
B9	4-6'		1030		X		3	1	
B9	6-8'		1040		X		4	1	
B9	8-10'		1050		X		5	1	
B9	10-12'		1100		X		6	1	
B10	0-2'		1230		X		7	1	
B10	2-4'		1235		X		8	1	
B10	4-6'		1240		X		9	1	
B10	6-8'		1245		X		10	1	
B10	8-10'		1250		X		11	1	
B10	10-12'		1300		X		12	1	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
<i>[Signature]</i> 1/18/88									
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Relinquished by: (Signature)				Received by Mobile Laboratory for field analysis: (Signature)				Date/Time	
Dispatched by: (Signature)		Date/Time		Received for Laboratory by:		Date/Time			
				<i>[Signature]</i>		1/18/88 3:30			
Method of Shipment:									

* Transferred B10-6 (10-12') to another jar.



EEC
LABORATORIES, INC.

[illegible]

RACER0059880

CHAIN OF CUSTODY RECORD

SURVEY				SAMPLERS: (Signature)					
G.M. - Ley Creek				D.T. Bussey <i>[Signature]</i>					
STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE			SEQ. NO.	NO. OF CONTAINERS	ANALYSIS REQUIRED
				Water		Air			
				Coma.	Gra.				
B12-1	0-2'	1/19/88	0925		X		1	1	See W.J. Gabriel
B12-3	4-6'		0935		X		2	1	
B12-4	6-8'		0945		X		3	1	
B12-5	8-10'		0955		X		4	1	
B13-1	0-2'		1140		X		5	1	
B13-2	2-4'		1145		X		6	1	
B13-3	4-6'		1155		X		7	1	
B13-4	6-8'		1200		X		8	1	
B13-5	8-10'		1205		X		9	1	
B13-6	10-12'		1210		X		10	1	
B13-7	12-14'		1220		X		11	1	
B14-1	0-2'		1420		X		12	1	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
<i>[Signature]</i> 1/19/88 1600									
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Relinquished by: (Signature)				Received by Mobile Laboratory for field analysis: (Signature)				Date/Time	
Dispatched by: (Signature)		Date/Time		Received for Laboratory by:		Date/Time			
				<i>[Signature]</i>		1/19/88 16:00			
Method of Shipment:									



EEC
LABORATORIES, INC.

[illegible]

Relinquished by: Signature 1/19/88 1660

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: /Signature/

Date/Time

Retinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by Mobile Laboratory for field analysis: (Signature)

Date/Time

Dispatched by: (Signature)

Date/Time

Received for Laboratory by:

Date/Time

Method of Shipment:

Gori Alessandro

11/19/88 Herd



CHAIN OF CUSTODY RECORD

SURVEY				SAMPLERS: (Signature)					
SM - LCH CREEK				William J. Leibel					
STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE			SEQ. NO.	NO. OF CONTAINERS	ANALYSIS REQUIRED
				Water	Air				
				Comp.	Grav.				
B15-1	(0-2')	1/20/88				✓		1	SWB46-8080
B15-2	(2-4')	1/20/88				✓		1	
B15-3	(4-6')	1/20/88				✓		1	
B15-4	(6-8')	1/20/88				✓		1	
B15-5	(8-10')	1/20/88				✓		1	
B15-6	(10-12')	1/20/88				✓		1	
B16-1	(0-2')	1/20/88				✓		1	
B16-2	(2-4')	1/20/88				✓		1	
B16-3	(4-6')	1/20/88				✓		1	
B16-4	(6-8')	1/20/88				✓		1	
B16-5	(8-10')	1/20/88				✓		1	
B16-6	(10-12')	1/20/88				✓		1	✓

521,500 mg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
William J. Leibel		1/21/88 3:34p
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received by Mobile Laboratory for field analysis: (Signature)	Date/Time
Dispatched by: (Signature)	Date/Time	Received for Laboratory by: Date/Time
		Wendy Smith 1/21/88 2:30
Method of Shipment:		

[illegible]



CHAIN OF CUSTODY RECORD

5000.001.001

SURVEY				SAMPLERS: (Signature)					
CM - L27 CREEK				William C. Hebert					
STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE			SEQ. NO.	NO. OF CONTAINERS	ANALYSIS REQUIRED
				Water		Air			
				Com.	Grab.				
B20-1	(0-2')	2/4/88					1	1	PCB (SWB46-9030)
B20-2	(2-4')							1	
B20-3	(4-6')							1	
B20-4	(6-8')							1	
B21-1	(0-2')							1	
B21-2	(2-4')							1	
B21-3	(4-6')							1	
B21-4	(6-8')							1	
B22-1	(0-2')							1	
B22-2	(2-4')							1	
B22-3	(4-6')							1	
B22-4	(6-8')							1	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
William C. Hebert				2/4/88				5:15P	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
Relinquished by: (Signature)				Received by: (Signature)				Date/Time	
				Laurie Wright				2/4/88 5:15	
Relinquished by: (Signature)				Received by Mobile Laboratory for field analysis: (Signature)				Date/Time	
Dispatched by: (Signature)			Date/Time	Received for Laboratory by:			Date/Time		
			1	Wendy Smith			2/5/88 1:300		
Method of Shipment:									

CCP 100172

